

Title (en)  
HYDRAULIC DRIVING UNIT FOR CONSTRUCTION MACHINERY.

Title (de)  
HYDRAULISCHE ANTRIEBSEINHEIT FÜR BAUMASCHINEN.

Title (fr)  
UNITE DE COMMANDE HYDRAULIQUE POUR ENGIN DE CONSTRUCTION.

Publication  
**EP 0432266 A4 19910403 (EN)**

Application  
**EP 90901893 A 19900118**

Priority  
• JP 9000048 W 19900118  
• JP 927889 A 19890118  
• JP 18701989 A 19890719

Abstract (en)  
[origin: WO9008263A1] This invention relates to a hydraulic driving unit provided with: an engine (1); a variable capacity hydraulic pump (2) driven by said engine; at least one hydraulic actuator driven by oil delivered from the pump (6); a control valve means (8) for interconnecting the hydraulic pump and actuator and controlling the flow rate of hydraulic fluid fed to the actuator according to the degree of operation of an operating means (58); a pump control means (17) for controlling the displacement volume of the hydraulic pump according to the degree of operation of the operating means so that the discharge quantity of the hydraulic pump increases as the aforesaid degree of operation increases; and an engine control means (29) for controlling the RPM of the engine. The engine control means (29) monitors whether or not the discharge quantity of the hydraulic pump (2) reaches saturation and, when a specified saturation condition is reached by hydraulic pump, it can exhibit such functions (33, 36) as increasing the RPM of the engine (1) and eliminating saturation.

IPC 1-7  
**F15B 11/00**; **E02F 9/22**

IPC 8 full level  
**E02F 9/22** (2006.01); **F15B 11/00** (2006.01)

CPC (source: EP KR US)  
**E02F 9/22** (2013.01 - KR); **E02F 9/2235** (2013.01 - EP US); **E02F 9/2246** (2013.01 - EP US); **E02F 9/2296** (2013.01 - EP US); **F15B 11/00** (2013.01 - KR); **F16H 61/4078** (2013.01 - EP US); **F16H 61/433** (2013.01 - EP US); **B60W 10/06** (2013.01 - EP US); **F15B 2211/20553** (2013.01 - EP US); **F15B 2211/253** (2013.01 - EP US); **F15B 2211/50536** (2013.01 - EP US); **F16H 2059/6846** (2013.01 - EP US)

Citation (search report)  
• [X] EP 0214633 A1 19870318 - HITACHI CONSTRUCTION MACHINERY [JP]  
• [AP] EP 0326150 A1 19890802 - HITACHI CONSTRUCTION MACHINERY [JP]  
• [A] EP 0062072 A1 19821013 - HITACHI CONSTRUCTION MACHINERY [JP]  
• [A] EP 0353799 A1 19900207 - HITACHI CONSTRUCTION MACHINERY [JP]  
• [A] PATENT ABSTRACTS OF JAPAN, vol. 10, no. 155 (M-485)[2211], 4th June 1986; & JP-A-61 11 429 (HITACHI) 18-01-1986  
• See references of WO 9008263A1

Cited by  
WO2006037318A1; EP0791771A4; EP0765970A3; EP0681106A4; EP0545271A1; DE4440304A1; DE4440304C2; FR2799776A1; EP0644335A4; DE102008054880A1; EP0695875A4; CN102265041A; EP0848113A1; US5974796A; EP0605724A4; US9429175B2; US7870728B2

Designated contracting state (EPC)  
DE FR GB IT SE

DOCDB simple family (publication)  
**WO 9008263 A1 19900726**; DE 69004789 D1 19940105; DE 69004789 T2 19940324; DE 69004789 T3 19971218; EP 0432266 A1 19910619; EP 0432266 A4 19910403; EP 0432266 B1 19931124; EP 0432266 B2 19970813; KR 910700412 A 19910315; KR 930009513 B1 19931006; US 5155996 A 19921020

DOCDB simple family (application)  
**JP 9000048 W 19900118**; DE 69004789 T 19900118; EP 90901893 A 19900118; KR 900702025 A 19900914; US 56646690 A 19900820